

Claims

1. A microwave switch housing assembly for operation in a selected frequency range, comprising:
 - 5 (a) a housing;
 - (b) a rotor rotatably mounted within said housing;
 - (c) at least one waveguide passage in said rotor;
 - (d) said housing having ports formed therein so that in a first position of said rotor, said waveguide passage connects said ports and in a
10 second position of said rotor, said waveguide passage is unconnected to said ports;
 - (e) a power absorbing element located within one of said housing and said rotor such that said power absorbing element is positioned adjacent to one end of said waveguide passage when said rotor is
15 in said second position;
 - (f) said power absorbing element being capable of absorbing electromagnetic energy in said frequency range, so as to reduce the tendency of said waveguide passage to act as a volume resonator when said rotor is in said second position.
- 20 2. The microwave switch housing assembly of claim 1, wherein said housing has an interior opening to accommodate said rotor, said opening having a cylindrical surface, said cylindrical surface having a channel therein adapted to house said power absorbing element.
3. The microwave switch housing assembly of claim 2, wherein said
25 waveguide passage has an end opening having a selected height and width, and said channel has substantially the same height and width as said selected height and width.

4. The microwave switch housing assembly of claim 2, wherein said waveguide passage has two end openings, and wherein said power absorbing material is positioned in said housing adjacent to at least one of said end openings when said rotor is in said second position.
- 5 5. The microwave switch housing assembly of claim 2, wherein said channel has a cross-section selected from the group consisting of: rectangular, cylindrical, triangular.
6. The microwave switch housing assembly of claim 2, wherein said power absorbing element has a cross-section selected from the group consisting
10 of: rectangular, cylindrical, triangular.
7. The microwave switch housing assembly of claim 1, wherein said rotor has a plurality of curved outer surfaces, at least one of said curved outer surfaces having a channel therein adapted to house said power absorbing element.
- 15 8. The microwave switch housing assembly of claim 7, wherein said waveguide passage has an end opening having a selected height, and said channel has a height that is substantially the same height as said selected height.
9. The microwave switch housing assembly of claim 7, wherein said
20 waveguide passage has two end openings, and wherein said power absorbing material is positioned in said housing adjacent to at least one of said end openings when said rotor is in said second position.
10. The microwave switch housing assembly of claim 7, wherein said channel has a cross-section selected from the group consisting of: rectangular,
25 cylindrical, triangular.

11. The microwave switch housing assembly of claim 7, wherein said power absorbing element has a cross-section selected from the group consisting of: rectangular, cylindrical, triangular.